

Ceres Food Philosophy

Why & How





OUR MISSION

Ceres Community Project builds healthy communities by restoring fresh, whole and organic food to its place as the foundation of health, and by connecting people in heart-centered ways to themselves, others and the earth.

KEY FACETS OF OUR APPROACH

- ✓ Supporting individuals dealing with serious illness with free, delivered and nutrient-rich prepared meals, nutrition education, and a community of caring.
- ✓ Involving young people as volunteer gardeners and chefs, giving them direct, hands-on experience of the difference that fresh, healthy foods and community make, and of their own capacity to contribute.
- ✓ Educating the broader community, including health professionals, about the connection between fresh, healthy food, strong social networks, healing and wellness.
- ✓ Connecting people of all ages and from all walks of life to one another, and to their value as an integral part of the community.

OUR PHILOSOPHY

Ceres is committed to using foods that are healthiest for the person as well as the planet. The Ceres meals contain whole foods that are whole, organic, local whenever possible, low-glycemic, and made with love. These meals are

designed to support people whose health and appetites are compromised.



Ceres uses organic and local foods to insure that the freshest and most nutrient rich whole food is available for our clients as well as to nurture a healthy local food system by supporting our local growers and producers.

The nutrients in whole, organic fresh foods are rich and alive. Having been spared from commercial processing, these foods are steeped in healthy minerals, vitamins, enzymes, fats, carbohydrates, fiber, protein, and protective phytochemicals. Phytochemicals, also known as phytonutrients, are natural components of plants which support the immune system and cellular health. A diet rich in all of these nutrients is the foundation from which our body builds, repairs, and sustains life.

To create our healing meals, we embrace the American Institute of Cancer Research's *New American Plate*, with 2/3 of the plate consisting of plant-based whole foods, creating a meal that is composed primarily of vegetables, legumes and whole grains. This emphasis is also widely supported by the Academy of Nutrition and Dietetics, the National Association of Nutrition Professionals, American Cancer Society, the Institute for Functional Medicine, The Center for Mind Body Medicine, The Block Center for Integrative Cancer Care and other institutes and physicians that have researched the relationship between food and health. We use the *New American Plate* as a starting point, and enhance the meals further by focusing on organic foods and adding superfoods such as mushrooms, sea vegetables, herbs and fermented foods.

THE DIET AND HEALTH CONNECTION

Diet-related diseases are epidemic and cost our economy billions of dollars each year. According to the Centers for Disease Control, nearly 56% of deaths in the U.S. are from diet-related conditions (heart disease, cancer, stroke, and diabetes). Currently, more than 25 million Americans live with type 2 diabetes, 27 million with chronic heart disease, 68 million with hypertension¹⁴ and nearly 14.5 million Americans with a history of cancer were alive on January 1, 2014.²⁸ One in three deaths from cancer each year could have been prevented by healthy eating.



"Approximately one third of all cancers are directly related to diet....There is thus no doubt that radically modifying our diet must be the inescapable goal of a preventative strategy designed to reduce the number or cancers effecting Western societies." ¹

Research in Epigenetics⁵⁶ shows that genes are not a sole determinant in the development of cancer, for example. In fact, only 5 to 10% of cancer cases can be attributed to genetic defects, while the environment to which we are exposed is a much more powerful predictor for the development of cancer. Toxic exposure is a leading risk factor for cancer, and if the food we eat is toxic (ie, processed foods, fruits and vegetables with pesticide residue, animal products with antibiotics and hormones, contaminated water), the development of cancer is more likely.

A study looking at the association of fruit and vegetable consumption with cancer prevention found that for most types of cancer, persons with low fruit and vegetable intake (at least the lower one-fourth of the population) experience about twice the risk of cancer compared with those with high intake, even after control for potentially confounding factors.⁵¹ Increasing fruit and vegetable consumption is the focus of what we serve and teach.

Another study from the Department of Epidemiology & Public Health, UCL (University College London) shows a direct relationship between the intake of 7+ portions of vegetables and fruits a day and reduced cancer and cardiovascular mortality. The higher the number of vegetables, the better the health results.⁵⁰

Healthier lifestyles and better diets could prevent up to 2.8 million cases of cancer each year, according to the World Cancer Research Fund. The number of global cancers has increased by a fifth in less than a decade, along with other chronic diseases like heart and lung disease and diabetes. ¹⁸ Ceres offers a solution to help reverse this troubling trend.

"A diet rich in fruits and vegetables is the best bet for preventing virtually every chronic disease. This fact has been established time and time again by scientific studies on large numbers of people. The evidence in support of this recommendation is so strong that it has been endorsed by U.S. government health agencies and by virtually every major medical organization... Fruits and vegetables are so important in the battle against cancer that some experts have said that cancer is a result of a "maladaptation" over time to a reduced level of intake of fruits and vegetables." ⁶

Obesity is a major risk factor for chronic disease and cancer, and obesity rates, especially in childhood, have grown exponentially in the last 30 years. One of the most apparent causes for this epidemic is the kind of foods we are consuming. Some might say that eating whole, organic foods is too expensive and time-consuming, but when we look at the rising cost of health care, we can clearly see that dealing with diet-related diseases is much more expensive, both in money and time, to say nothing of the diminished quality of life. If obesity rates continue on their current trajectories, the number of new cases of type 2 diabetes, coronary heart disease and stroke, hypertension and arthritis could increase 10 times between 2010 and 2020—and double again by 2030, at which point medical costs associated with treating these diseases are estimated to increase to \$66 billion per year in the United States (from \$18 billion in 2010), and the loss in economic productivity could be between \$390 and \$580 billion annually by 2030. For a family, spending more money and time on safer, more nutritious foods *now* will ensure less money and time spent managing disease later.

"More than 127,000 deaths per year from cardiovascular diseases could be prevented, and \$17 billion in annual national medical costs could be saved, if Americans increased their consumption of fruits and vegetables to meet dietary recommendations." ²²

With the increasing evidence that lifestyle factors, including nutrition, have a profound influence on the development of most chronic conditions, we must consider a healthy diet as a primary *prevention* strategy for all chronic illnesses - including cancer, heart disease, stroke, and diabetes - as well as for the *recovery* of those dealing with a health crisis, which has been reported by our clients, and documented by similar programs throughout the country.



Nutrition for Youth

The importance of eating more vegetables and fruits and less processed foods is even more crucial for children and adolescents, as a strong nutritional base is the foundation for their development, both physical and psychological. The need for better nutrition for students was demonstrated in The *Appleton School Study*⁴⁷ where junk food was replaced with real food at Appleton Central Alternative Charter High School, where most students



had struggled in conventional settings (usually because of psychological and emotional problems and/or dysfunctional home environments). The school partnered with Natural Ovens Bakery to offer the students nutritious breakfasts and lunches, and eliminated vending machines. Before the study, "during breaks, students would socialize in the student lounge while drinking soda and eating candy or chips. After these breaks staff noticed the students' irritability increased and their attention spans decreased." Teachers commented that students displayed a lack of concentration, listened poorly, daydreamed, were off task, did not follow directions, lost their tempers and were not easily able to

settle down to complete their writing assignments.

After the transition of eating from the vending machine to eating nutrient rich meals made daily from scratch by the Natural Ovens cooks, the study reported the following results:

- ✓ Reduced disruptive behavior: Teacher Mary Bruyette said she saw changes "overnight." She noticed a considerable decrease in impulsive behaviors, such as talking out, fidgeting and the use of foul language.
- ✓ Health complaints diminished substantially, including less headaches, stomachaches, and feeling tired. Students were no longer hungry mid-morning or mid-afternoon.
- ✓ School staff report they are able to cover a greater amount of material at a more challenging level, as students are on task and are attentive. They can concentrate for longer periods of time.

"I can say without hesitation that it's changed my job as a principal."

- LuAnn Coenen, Appleton Alternative Charter High School Principal

This is one of many initiatives that are showing how much nutrition affects development and behavior in youth.

THE STANDARD AMERICAN DIET AND ITS CONSEQUENCES

The meals Ceres provides are designed to counteract the Standard American Diet, which, according to Mark Hyman, MD, "is a problem both for what it contains - too much sugar, processed fats, salt, additives, hormones, pesticides, and genetically-altered inflammatory proteins - and for what it doesn't contain - Omega-3 fats, fiber, magnesium, zinc, B and D vitamins, antioxidants and more."

The Standard American Diet (SAD) is based on processed foods that often contain highly processed oils (unhealthy fats), added sugars, sodium, and genetically modified ingredients. Low-quality proteins from animals treated with hormones and antibiotics and fruits and vegetables that contain synthetic pesticide and fertilizer residues round out the SAD. What does this diet look like? It isn't just about fast food and sugary drinks. Items on grocery store shelves that are advertised as healthy are also part of the SAD, such as many whole wheat breads, breakfast cereals, better-than-butter spreads, canned soups, frozen entrees, crackers, dips, salad dressings, protein bars, and so on.

Americans buy four times more refined grains than the maximum recommended by the USDA and spend nearly 14% of at-home food budgets on sugar and candies, and another 8% on pre-made frozen and refrigerated entrees, which are usually heavily-processed food products containing artificial coloring, preservatives, low-quality fats,





and all forms of sugar, including high fructose corn syrup. Whole fruit accounts for less than 5% of our grocery bill¹⁶ and vegetables account for only 7%, with almost half of those being canned or frozen. Potatoes account for the largest expenditure on vegetables, at three times more pounds than the next most purchased vegetable: the tomato³¹ (which is technically a fruit). Only 0.5% of food budgets are spent on dark green vegetables³¹ (the USDA recommended amount is at least 7%²⁹). We now know that a diet low in fruits and vegetables and heavy in processed foods is the main culprit of chronic disease.

According to the CDC, heart disease is the leading cause of death in the US for both men and women. Each minute, someone in the United States dies from a heart disease-related event.³⁰ The top 3 risk factors for heart disease are diabetes, obesity, and poor diet, with the first two risk factors *caused* by the third (poor diet). Unfortunately, the Standard American Diet is the *definition* of a poor diet.

Two of the Worst Ingredients in the Standard American Diet: Refined Sugars

The average American consumes 152 lbs of sugar a year, which has now surpassed our consumption of white flour (refined flour has the same effect as sugar in our bodies) at 146 lbs a year. Children are eating as much as 34 tsp of sugar a day, most of it coming from the added and often hidden sugars in over 480,000 of our food products. Not only is sugar full of calories but empty of nutrients, it also creates a number of serious problems in the body, starting with inflammation and leading to obesity, diabetes, heart disease and cancer.

"On any given day, half the people in the U.S. consume sugary drinks; 1 in 4 get at least 200 calories from such drinks; and 5% get at least 567 calories—equivalent to four cans of soda. Sugary drinks (soda, energy, sports drinks) are the top calorie source in teens' diets (226 calories per day), beating out pizza (213 calories per day)." 49

Studies have found that: 1) people who consume sugary drinks regularly—1 to 2 cans a day or more—have a 26% greater risk of developing type 2 diabetes than people who rarely have such drinks;⁴⁴ 2) that men who averaged one can of a sugary beverage per day had a 20% higher risk of having a heart attack or dying from a heart attack than men who rarely consumed sugary drinks³⁵ - with similar results for women;³⁸ 3) that women who consumed a can a day of sugary drink had a 75% higher risk of gout than women who rarely had such drinks³² - with similar results in men;³³ and 4) that the consumption of sugar-sweetened beverages is an important predictor of cardiometabolic risk in young people, independent of weight status.⁴⁴

Trans Fats

One of the features of the Standard American Diet is the *low-fat diet*, "which has long been touted as the key to a healthy weight and to good health. But the evidence just isn't there: over the past 30 years in the U.S., the percentage of calories from fat in people's diets has gone down, but obesity rates have skyrocketed. For chronic disease prevention and weight loss, the quality and food sources of fats matters more than their relative quantity in the diet." Part of the problem with low-fat diets is that they are often high in carbohydrate, especially from rapidly-digested sources, such as sugar, white bread and white rice. "And diets high in such foods increase the risk of weight gain, diabetes, and heart disease." 17

In a recent meta-analysis of 72 studies on fat, the results showed no link with cardiovascular disease, *except* for trans fats.³⁴ The fear of saturated fats that has plagued our culture for the last 30 years has created an underinsulated, over-sugared, nutrient-starved population, while the use of trans fats has been silently accepted, at least until recent years.



Trans fat is made by adding hydrogen to vegetable oil through a process called hydrogenation, which changes the molecular composition of a natural oil, creating something that our bodies cannot easily recognize or process. Studies now show that trans fat raises our "bad" cholesterol (LDL) and reduces our "good" cholesterol (HDL), among other harmful effects, ⁴² and many food companies are committing to reducing or eliminating trans fat from their products. Unfortunately, in the United States, if a food has less than 0.5 grams of trans fat per serving, the food label can read 0 grams trans fat, which can be very misleading, especially when the "suggested" serving size is much smaller than what people are likely to consume. Trans fat is found in a variety of crackers, cookies, cakes, fried foods, and packaged dinners, and is usually listed in the ingredients as hydrogenated or partially hydrogenated oil.

THE WHY BEHIND OUR APPROACH

Key facets of our approach:

- 1. Whole
- 2. Organic
- 3. Local
- 4. Low-glycemic
- 5. Made with Love



1. Whole

Ceres starts with fresh whole foods rather than refined canned or processed foods because they offer the highest nutritional values, exclude refined sugar and trans fat, and still have a life force. Life force may seem to be a fuzzy term, but life force is now scientifically recognized as enzymatic reactions that sustain life. Enzymes are very necessary proteins that catalyze, or start, the thousands of biochemical occurrences in the body necessary for life. They are needed for every action in life from digestion to building new tissues to creating thoughts and movement. Whole foods have enzymes that are vital to support our health and healing, and also offer minerals and proteins needed for our body's production of enzymes and coenzymes (which are necessary in order for enzymes to work). Hence a good diet becomes the foundation for health.

Whole foods are in their natural state and have not gone through industrial processing, so their nutrients are more likely to be intact (and available to us). Their footprint on the planet is also much smaller than that of processed foods because they don't require factories to process them, using less water and energy, and often less or no packaging.

2. Organic

At Ceres we also put an emphasis on the quality of whole food, so that it isn't only about which foods we use, but where they come from. This is why we use organic, seasonal, nutrient-rich foods that are local and sustainable as much as possible. We equate *organic* with *quality* because organic foods contain more nutrients than foods grown conventionally, and don't contain toxic pesticides.

A new study published in the British Journal of Nutrition, which analyzed 343 peer-reviewed research papers documenting the nutritional benefits of organic grains, fruits and vegetables, found that organic crops have higher concentrations of antioxidants, lower levels of cadmium and nitrates and fewer pesticide residues than non-organic crops. The study concluded that switching to an organic diet would provide a 20% to 40% increase in antioxidant and polyphenol consumption, which the authors conclude is equivalent to eating an extra one or two servings of fruits and vegetables a day. Antioxidants and polyphenols are known to help prevent diseases



triggered by oxidative damage, like coronary heart disease, stroke, and certain cancers.

Our choice to use organic foods is also based on the fact that "in the United States, more than 1.2 billion pounds of pesticides and herbicides are sprayed on or added to food crops each year. That's roughly five pounds of pesticide for each man, woman, and child." This widespread use of chemicals in our food supply has been linked to a significant number of cancers, and it is now known that their compounds can damage our bodies' detoxification mechanisms, so we are not only getting more toxins, we can't get rid of them. According to a recent paper published by University of California at San Francisco, pesticide exposure is also linked to adverse reproductive and developmental health outcomes, can interfere with all developmental stages of reproductive function in adult females, and has been associated with sterility in males. The National Academy of Sciences and the University of California, Irvine sech published studies showing brain anomalies in children exposed to pesticides. The list of studies showing negative health outcomes from pesticides gets longer each day. Sech published studies are sprayed to pesticides and the University of California, Irvine sech published studies showing brain anomalies in children exposed to pesticides. The list of studies showing negative health outcomes from pesticides gets longer each day.

Organic farming reduces pollution of soil and water, and is safer for farmers and farm workers; it offers a greater biodiversity and cannot intentionally use genetically modified seeds. Using organic ingredients which are grown without the use of synthetic pesticides and fertilizers better supports our clients in their recovery from illness, helps increase demand for organic food, supports organic farmers in their vital work, and helps build a more sustainable planet for all of us.

3. Local

Produce that is harvested at its peak, rather than picked green and gassed in order to travel many miles, is higher in nutrients, and has a smaller environmental footprint.

Eating local also benefits our local economy, and ensures that people in the community have jobs. Knowing the farmer and where the food comes from provides peace of mind and a fuller sense of connection to the earth.

4. Low-glycemic

Another important aspect of our meals is that they are balanced for appropriate intake of all macronutrients (proteins, fats, and carbohydrates) and we create them with a low glycemic load, so that they will not cause a spike in blood sugar (high blood sugar is linked with cancer growth, and blood sugar spikes have short-term consequences such as fatigue and long-term consequences such as diabetes and cardiovascular disease). We do not use any refined sugars for this reason.

5. Made with Love

The connection between food and our health is vital, but there is another connection that is just as important – our connections with others. A meta-analysis of 148 different studies on social isolation and health outcomes found that people with strong social networks were 50% more likely to be alive an average of eight years later than people who were more disconnected. The same study found that being socially isolated was as bad for our health as smoking 15 cigarettes as day, and twice as harmful as being obese. ⁴¹ A 2014 study showed a consistent link between loneliness and reduced immune system functioning. ²³



Clinical and epidemiological studies over the last 30 years have identified that psychosocial factors such as stress, chronic depression and feelings of isolation are risk factors for cancer progression.⁴⁸ We want to help nurture the body of those dealing with illness as well as nurture their heart and soul with care and love, so that they do not feel isolated, depressed, or alone.





FOOD AS MEDICINE

Programs like Ceres bring vital nourishment to those dealing with an illness, and by doing so, reduce re-hospitalization rates, reduce time spent in the hospital, increase the effectiveness of medications, and improve overall quality of life. Making sure patients have enough healthy, wholesome foods to eat at home makes economic and social sense.

According to David Waters, Chief Executive Officer of Community Servings, a Massachusetts-based non-profit medically-tailored meal delivery service, "one in three patients [in the US] enters the hospital malnourished, adding a host of

additional health challenges to patients' prognoses and millions in additional health care costs. The challenge of how to feed our sick neighbors continues to plague this country and the consequences are becoming more real each day." ²⁵

Waters also shares that "studies show that patients with access to meals have fewer missed medical appointments, enhanced medication adherence, reduced trips to the emergency room, and lower rates of hospital readmissions."

In the report *Food As Medicine*, Community Servings states that "The severity and progression of critical and chronic disease can be mitigated by improved nutritional status" and "growing evidence indicates that many medical treatments are less effective without adequate nutrition. Inadequate nutrition, as described in a 2006 report of the Association of Nutrition Services Agencies (ANSA), is a self-perpetuating problem because it can be both a cause and consequence of poor health and poverty. Breaking this cycle requires innovative approaches to make medically appropriate food accessible to people facing critical and chronic disease." ²⁵

These statements are supported by research collected by the 2011 National Health Interview Survey, which found that people who are diagnosed with a chronic illness and are experiencing trouble affording food were four times as likely to skip some of their medications due to cost than those without food insecurity. Another study estimated that if all states had increased by one percent the number of adults age sixty-five or older who received home-delivered meals in 2009, annual savings to states' Medicaid programs could have exceeded \$109 million. According to the study, "the projected savings primarily reflect decreased Medicaid spending for an estimated 1,722 older adults with low care needs who would no longer require nursing home care--instead, they could remain at home, sustained by home-delivered meals." 45

Food as Medicine: Reducing Health Care Costs with Comprehensive Medical Nutrition Therapy, a study published in November, 2013, provides statistical evidence that critically ill, nutritionally at-risk people receiving nutritious meals experience improved health outcomes and incur lower health care costs than similar people who do not receive this service.³⁷ The study looked at services provided through MANNA, a Philadelphia-based organization that provides nutritious, home-delivered meals to individuals and families living with life-threatening illnesses. They found that the average monthly health care costs of MANNA clients fell 62% for three consecutive months after beginning service for a drop of almost \$30,000. For HIV/AIDS patients, costs fell over 80% in the first three months.⁴⁰

A policy brief released in August, 2014 by the Union of Concerned Scientists on Hospitals and Healthy Food confirms that "improving community food environments and increasing demand for, and access to, more healthful foods are essential components of driving down the long-term health expenditures from diet-related diseases. In particular, incentives for fruit and vegetable consumption could reap enormous health and economic benefits over time; [...] if Americans increased their daily consumption of these foods to meet federal dietary recommendations, the nation's costs related to the treatment of cardiovascular disease alone could drop by \$17 billion."



HOW: THE CERES APPROACH

A closer look at the meals delivered by Ceres Community Project provides an understanding of why 100% of Ceres clients say that the meals helped them recover more quickly and fully. Ceres follows the recommendations of the American Institute of Cancer Research meal portion guidelines of two thirds of the plate containing plant-based foods such as vegetables, legumes, mushrooms, grains, and fruit, with a small amount of nuts or seeds, and one third from organic naturally produced animal products such as wild caught fish, pasture-raised poultry, goat & cow cheese, and eggs. Ceres goes beyond the guidelines by sourcing all foods organically and by adding superfoods to the meals, including mushrooms, herbs, sea vegetables, and fermented foods.

We emphasize these foods:

Dark Leafy Greens

Kale, collards, chard and other dark leafy greens support blood sugar regulation, cleanse the blood, and offer phytochemicals that protect and detoxify the body from excess hormones, chemicals and toxins. Dark green leafy vegetables are cruciferous vegetables and are high in iron, vitamins A and C, folic acid and phytonutrients that fight cancer, such as Isothiocyanates (ITCs), made from glucosinolates. They also offer bone support with calcium, magnesium and vitamin K.

Other Cruciferous Vegetables

Cabbage, broccoli, Brussels sprouts, cauliflower, watercress, Bok Choy, turnips and radishes are offered weekly, with specific vegetables changing based on what is in season. These vegetables also protect against cancer as they contain large amounts of anti-cancer compounds known as glucosinolates. The American Cancer Society states that cruciferous vegetables increase the glutathione levels in the body. Glutathione is an antioxidant that protects cells from free radicals, also known as reactive oxygen species (ROS) and it is used by the liver to detoxify carcinogens. Cruciferous vegetables also tend to be high in Vitamin C, kill bacteria and viruses, and stimulate the immune system.

Ceres Immune Broth

This is a potassium rich, alkalinizing, vegetable-based broth that was specifically formulated for our clients who are going through chemotherapy or radiation therapy for cancer, but would be nourishing for anyone who is weakened by illness. Filled with delicious mineral-rich vegetables, this broth supports the immune system with special herbs and mushrooms, such as Reishi mushrooms, codonopsis and astragalus. These special ingredients are known as adaptogens - substances that help the body adapt to stress, support normal metabolic functions, and help restore balance. Mushrooms can support the immune system in many different ways, one of them being to increase the number and activity of killer T and natural killer (NK) lymphocytes, with no toxicity to healthy cells.

This nutrient rich broth is created by simmering the vegetables, sea vegetables, mushrooms, and herbs together for hours over low heat, until all the nutrients transfer from the food matter into the water. Broths are easy to drink and provide nutrients for those who are having difficulty eating. They are readily absorbed and have soothing qualities that can promote appetite.

Sea Vegetables

Sea vegetables offer one of the broadest ranges of minerals of any food, containing virtually all the minerals found in the ocean, and many of the same minerals found in human blood. They also offer protein, enzymes, antioxidants and fucoidans (starch-like polysaccharide molecules which offer anti-inflammatory, anticancer, anticoagulant, antithrombotic, and antiviral properties).

They are easy to use and very digestible. Kombu is one of our favorites, used in every batch of Immune Broth made at Ceres. Kombu adds a pleasant flavor without tasting like the sea. As a member of the kelp family it has



many uses including supporting the kidneys; balancing the thyroid; and helping reduce candida, anemia, and edema. Added to grains, legumes or tea, Kombu eliminates gas and adds valuable minerals to the meal. Ceres also uses other sea vegetables such as Arame´, Wakame´ and Sea Palm. Each has the important minerals and protein needed to maintain the body's building blocks for health. For example, sea vegetables are a good source of bioavailable iron, plus a measurable amount of vitamin C, and this combination is thought to offer enhanced health benefits. They are also rich in iodine, needed for brain and thyroid health.

Fermented Foods



Enzymes and probiotics are the stars of fermented foods. Enzymes are the key to all life, as our body uses over 3,000 different enzyme reactions per second to maintain cellular health and immunity.

The probiotic content in fermented foods helps digestion, boosts the immune system, and creates vitamins, enabling the body to digest and assimilate the food we eat. Chemotherapy, radiation therapy and many pharmaceutical drugs disrupt the intestinal bacteria. Eating small amounts of fermented foods on a daily basis can help

support and/or restore healthy digestion.

Probiotics are micro-organisms that live in our small and large intestines. Each of us carries about 5 pounds of micro-organisms: some are "friendly flora" and support our health and some are "unfriendly," like E.coli. If we have enough friendly probiotics, they create an environment that will not sustain the unfriendly micro-organisms. Ceres' Sauerkraut as well as Redwood Hill Farm & Creamery's Goat Kefir are examples of fermented foods we offer our clients.

Soaked or Sprouted Seeds, Nuts, Grains and Legumes

There are great nutritional benefits to the minerals, fats and proteins found in seeds, nuts, grains, and legumes. However, these foods have seed coats with compounds which protect them from germinating when they are not in the right conditions. Our digestive system cannot break down the seed coat compounds efficiently. Hence, some of the nutritional values of the seeds, nuts, legumes, or grains are lost, or we may experience discomfort after eating these foods (allergies, food sensitivities, gas, or bloating). Soaking and sprouting removes the seed's coat and sheds its anti-nutrients, so that the seed, now ready to be in plant form, becomes much easier for us to digest, and the nutrients more available.

Soaked or sprouted seeds, nuts, grains, and legumes increase in nutritional value from 50% to as much as 500%. A seed at the sprout stage has greater amounts of enzymes, minerals, vitamins, proteins, bioflavonoid, T-cells, RNA and DNA than at any other time in the maturing plants' life. And they can be grown on the kitchen counter without chemicals. Soaking and sprouting are the cheapest and easiest ways to create locally grown, organic, nutrient rich food.



OUR RESULTS WITH CLIENTS

The positive response we receive from clients, and from teen and adult volunteers who work at Ceres, is proof of the importance of this work. Ceres completed a two-and-a-half-year program evaluation study funded through a grant from the US Department of Agriculture in June of 2014.

Based on interviews performed three months after the clients received an average of 14 weeks of meals, compared to interviews performed at intake, the study shows the following results for clients:



Cooking Behavior:

- ✓ The percentage of clients who report cooking full meals from scratch either daily or frequently increased by 47% from 59% to 87% of all clients.
- ✓ The percentage who describe their diet as only dinners from scratch with lots of fresh vegetables increased by 59% from 18% to 33% of all clients.

Healthy Eating:

- ✓ The following percentage of clients report that they are eating MORE of these healthy foods: vegetables 65%, fruit 48%, whole grains 43%
- ✓ The following percentage of clients report that they are eating LESS of these unhealthy foods: packaged/processed foods 74%, sugar 73%, fast food 72%
- ✓ On a separate question, consumption of all types of unhealthy foods decreased. For example, the percentage who say they eat fast food occasionally or more often (as opposed to rarely or never) drops 41%, from 32% of all clients to 19%.
- ✓ Fruit consumption increases 25% from 2.4 to 3.0 servings daily; there is a 29% increase in the percentage eating at least three servings daily.
- ✓ Vegetable consumption increases 21% from 2.8 to 3.4 servings daily; there is a 27% increase in the percentage eating at least three servings daily.

Value of Ceres Service:

- ✓ More than 75% of clients said that each of nine benefits of the program were either somewhat or extremely important to them, with the four most important being:
 - » I didn't have to cook 87% said this was extremely important and 13% said it was at least somewhat important.
 - » The healthy food helped me recover more quickly 83% said this was extremely important and 17% said it was somewhat important
 - » The meals helped me feel cared for and less isolated 84% said this was extremely important and 9% said it was somewhat important.
 - » What I learned about nutrition and healthy eating 67% said this was extremely important and 28% said it was somewhat important.

Community & Feeling Cared For:

In the open ended comments, clients were most likely to mention the experience of being part of a caring community and knowing that people were there for them. 38% also mentioned how moved they were that teens were cooking for them. Here are a few examples of these comments:

"Strangers cared about me. There is so very much love in everything that Ceres does--delivery of delicious food, flowers and just knowing how much love and energy goes into what you do."

"Restored my faith in the goodness of people."

"I think it is amazing that teens grow the vegetables and prepare the meals. The lessons they are learning about nutrition and compassion are huge life lessons that they will take with them."





OUR RESULTS WITH YOUTH

Below is a summary of the key findings for youth volunteering at Ceres, after an average of 6 months in the program:

Cooking Behavior:

- ✓ 98% of youth are either somewhat or very confident that they can prepare a healthy meal from scratch.
- ✓ The share of youth who report cooking at home at least once a week increases by 25% from 65% to 81% of participants.
- ✓ The share of youth who say they cook full meals from scratch increases by 28% from 47% to 60% of all youth.

Healthy Eating:

- ✓ Consumption of fresh fruit increases 16% from 3.2 to 3.7 servings per day. All varieties of fruit show an increase in consumption and the average number of fruits that youth report eating increases 5% from 11.7 to 12.3.
- ✓ 29% increase in the share of youth who report eating at least 3 servings of vegetables each day.
- ✓ All varieties of vegetables show an increase in consumption and the average number of different vegetables that youth report eating increases 27% from 15 to 19.
- ✓ Consumption of nearly all categories of unhealthy food decreases, particularly sodas and fast food.
- ✓ The share of youth who say they eat fast food daily, frequently or occasionally drops 54%, from 28% to 13% of youth. The share of youth who drink sodas on that basis drops 38%, from 47% to 29% of youth.

Advocacy:

- ✓ Youth are 50% more likely to be encouraging their friends to make healthier food choices on a daily or frequent basis (increases from 20% to 30% of youth).
- ✓ Youth are 44% more likely to be encouraging their family to make healthier foods choices on a daily or frequent basis (increases from 25% to 36% of all youth).

Connection to Community, Self Esteem & Leadership Development:

These two quotes from the open ended questions are good examples of the other impacts that program participation has on youth:

"I have stronger faith in a community. It has never been so easy for me to build up a community like it has been at Ceres, and I think that is because Ceres motivates our best selves. We're not in competition; we're just doing good and having fun while we do it. It's one of the most relaxed and loving atmospheres I've ever been in. What therapy for young people, especially high schoolers who live in so much 'drama'."

"Ceres has helped me be more confident in my cooking. Being able to communicate better with people and having a sense of leadership are two things that have changed me for the better. [Being able to] speak my opinion."



CONCLUSION

Ceres Community Project's unique integrated approach to improving eating habits for youth and those facing serious illness makes an immediate and profound difference in the lives of our clients and teens, and supports long-term prevention of disease by giving client families, teens, adult volunteers, and our community, the knowledge, skills and inspiration to make healthy choices for themselves and their families. Beyond that, Ceres strives to build meaningful relationships among all members of our community to stregthen the social connections that are vital for better health.

As the studies, reports, and statistics in this paper show, the way we eat has changed dramatically in the past one hundred years. We've moved from a primarily plant-based and whole grain diet with small amounts of naturally-raised animal foods to a highly-processed diet loaded with sugar, unhealthy fats, and processed, grain-fed meats. At Ceres Community Project, our goal is to restore whole and organic foods to their place as the foundation for long-term health, and to build the networks of relationship among all members of our community that support happier and healthier lives.



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